

PATENT
Serial No. 10/023,167
Amendment in Reply to Office Action mailed on December 23, 2005

REMARKS

This Amendment is being filed in response to the Office Action dated December 23, 2005, which has been reviewed and carefully considered. Reconsideration and allowance of the application in view of following remarks is respectfully requested.

In the Office Action, the Examiner indicated that claims 8 and 11 are allowed. Applicants gratefully acknowledge the indication that claims 8 and 11 are allowed.

In the Office Action, claim 1-6 and 9 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over by EP 0 549 182 A2 (Cline) in view of U.S. Patent No. 4,835,688 (Kimura). Further, claims 7 and 10 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Cline in view of Kimura and *Digital Flashing Tomosynthesis: A Promising Technique for Angiocardigraphic Screening* (Stiel). It is respectfully submitted that claims 1-7 and 9-10 are patentable over Cline, Kimura and Stiel for at least the following reasons.

Cline is directed to a system and method for displaying surgical cuts in three-dimensional models. As shown in FIG 2, and

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recited throughout Cline, such as the abstract, and page 3, line 1, a user selects the clip box 208 by selecting model cut planes 206 themselves.

As correctly noted by the Examiner, Cline does not teach or suggest moving a first clipping plane form a second clipping plane, as recited in independent claims 1 and 9. Column 1, lines 6-10, 39-43, and 53-66; and column 5, lines 20-22 and lines 31-40 Kimura are cited in an attempt to remedy this deficiency in Cline.

Kimura is directed to a three-dimensional (3-D) image processing apparatus. As recited on column 1, lines 44-56, second voxel data is extracted from first voxel data; a distance of the second voxel data which is closest to a projection plan is obtained; and a surface image is formed in accordance with the distance of the second voxel data which is closest to the projection plan. The projection plane is moved in 3-D space close to a memory space of the second voxel, thus simulating a surface image. That is, as recited on column 3, line 58 to column 4, lines 4; and column 4, lines 53-56, as the projection plane is sequentially moved closer to the memory space, different cutting areas or surfaces are sequentially displayed, where a previous

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surfaces, e.g., showing the epidermis and bone, are excluded to allow viewing of a current surface showing a blood vessel.

In Kimura, cutting can be simulated as recited on column 5, lines 31-40. In particular, as shown in FIG 8B, a volume of a 3-D image is displayed by cutting sections and extracting sectional images which are affine-transformed and combined to display a volume 3-D image as shown in FIG 8C. The cutting sections are shown in FIG 8B as sagittal section S1 and S2, axial sections A1 and A2, a coronal section C, and a bottom (in a depth direction) of a portion 84.

In stark contrast, the present invention as recited in independent claims 1 and 9, amongst other patentable features, requires (illustrative emphasis provided):

wherein said first clipping plane is moved to form said second clipping plane.

It is respectfully submitted that this feature is nowhere taught or suggested in Cline, Kimura, and combination thereof. Cutting planes are simply not moved in Kimura. Rather, as shown in FIG 8B, several different cutting planes are used to arrive to the volume 3-D image as shown in FIG 8C. The projection plane which is

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moved in Kimura has nothing to do with forming the volume 3-D image as shown in FIG 8C. Rather, the moving projection plane is related to sequentially displaying surfaces.

Stiel is cited in rejecting other claims and/or to allegedly show other features and does not remedy the deficiencies in Cline and Kimura.

Accordingly, it is respectfully submitted that independent claims 1 and 9 are allowable, and allowance thereof is respectfully requested. In addition, it is respectfully submitted that claims 2-7 and 10 should also be allowed based at least on their dependence from independent claims 1 and 9.

In addition, Applicants deny any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicants reserve the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

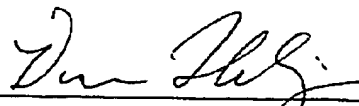
It is believed that no additional fees or charges are

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currently due beyond the fee for two additional independent claims as authorized to be charged by the included credit card authorization form. However, in the event that any additional fees or charges are required for entrance of the accompanying amendment, they may be charged to Applicants' representatives Deposit Account No. 50-3649. In addition, please credit any overpayments related to any fees paid in connection with the accompanying amendment to Deposit Account No. 50-3649.

In view of the above, it is respectfully submitted that the present application is in condition for allowance, and a Notice of Allowance is earnestly solicited.

Respectfully submitted,

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